

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-4 (canceled)

Claim 5 (currently amended): Thiophene oligomers [according to claim 4], characterized in that they have at least one functional group able to form a covalent bond with biological molecules and are excitable in the visible and ultraviolet light region without altering the biological activity of the biological molecules;

where the functional group is NCS.

Claim 6 (previously presented): Thiophene oligomers according to claim 5, where the functional group NCS is bound to the oligomer by means of an alkyl spacer comprising from 2 to 4 carbon atoms.

Claim 7 (previously presented): Thiophene oligomers according to claim 6, where the alkyl spacer is selected from the group consisting of  $\text{CH}_2\text{CH}_2$ - and  $(\text{CH}_3)_2\text{Si}-\text{CH}_2$ -.

Claims 14-18 (canceled)

Claim 19 (previously presented): Thiophene oligomers excitable in the visible and ultraviolet light region comprising at least one functional NCS group able to form a covalent bond with organic molecules, biological molecules or both.

Claim 20 (previously presented): Thiophene oligomers according to claim 19, where the functional NCS group is bound to the oligomer by an alkyl spacer comprising from 2 to 4 carbon atoms.

Claim 21 (previously presented): Thiophene oligomers according to claim 20, where the alkyl spacer is selected from the group consisting of  $\text{CH}_2\text{CH}_2$ - and  $(\text{CH}_3)_2\text{Si}-\text{CH}_2$ -.

Claim 22 (previously presented): A method of detecting molecules comprising:

- a) providing thiophene oligomers according to claim 19;
- b) covalently bonding the thiophene oligomers to the molecules; and

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NCS